



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|-------------------------|------------------|
| 09/867,766 | 05/31/2001 | Makoto Fujiwara | 60188-075 | 5700 |
| 7590 | 01/13/2006 | | | EXAMINER |
| MCDERMOTT, WILL & EMERY 600 13th Street, N.W. Washington, DC 20005-3096 | | | POLTORAK, PIOTR | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2134 | |
| | | | DATE MAILED: 01/13/2006 | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|------------------------------|-----------------------------------|-------------------------|--|
| | 09/867,766 | FUJIWARA, MAKOTO | |
| | Examiner Peter Poltorak | Art Unit 2134 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 01 November 2005.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1 and 5 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1 and 5 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) Notice of Informal Patent Application (PTO-152)
6) Other: _____

DETAILED ACTION

1. The Amendment, and remarks therein, received on 3/28/2005 have been entered and carefully considered.
2. The Amendment introduces new limitations (with support in the specification) into the originally claims 1 and 5. The newly introduced limitation has required a new search and consideration of the pending claims. The new search has resulted in newly discovered prior art. New grounds of rejection based on the newly discovered prior art follow below.
3. Applicant did not address the 35 U.S.C. 112, second paragraph rejection that the examiner directed towards the phrase “storing … data … address by address” is not understood in the previous Office Action.
4. It is understood that applicant accepts the interpretation of one of ordinary skill in the art (examiner’s) and as a result the rejection of claims 1-5 under 35 U.S.C. 112, second paragraph is moot.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Hartung et al.* (U.S. Patent 4438512) in view of Admitted Prior Art (APA) and further in view of *Milios et al.* (U.S. Patent No. 5860099).
6. As per claim 1 *Hartung et al.* teach a data storage unit 10 that stores the plurality of data and plurality of CRCs (col. 3 lines 41-43).

This reads on a storage data unit for storing data thereon address by address, and on a storage device for storing plural redundancy check data (CRC) address by address.

In Fig. 2 and col. 3 lines 68- col. 4 line 1 *Hartung et al.* teach data with a corresponding CRC and it is inherent that a CRC is derived by performing a predetermined calculation on the corresponding data.

Hartung et al. teach a CRC generator and compare circuits/programs that result in a data error being detected (col. 4 lines 33-36 and 55-col 5line 29).

This reads on a tester that includes a checker and comparing the checker calculation with each of the corresponding plural CRC data that is stored in the storage device address by address.

Although, *Hartung et al.* does not explicitly teach that the checker performs the same calculation as the predetermine calculation on each of the plural data in order to establish data integrity CRC must be calculated in the same manner so that the result is the same for each of the calculation on the same data.

7. *Hartung et al.* do not teach that the storage is ROM and do not explicitly teach that the plurality of data stored in the ROM is confidential data.

Admitted Prior Art (APA) teaches a ROM for storing plural confidential data thereon address by address (*Fig. 4 and the specification pg. 1*).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to implement *Hartung et al.*'s invention into the known ROM as taught by APA. One of ordinary skill in the art would have been motivated to perform such a modification in order to ensure integrity of the confidential data.

8. CRC is stored within the data storage unit (*Hartung et al. Fig. 2*) and each of the plural CRCs and the plural confidential data are stored at mutually different address (*Fig. 2 and col. 3 lines 38-55*), where (*claim 4*) each of the plural confidential data is stored at certain data bit positions of an address and CRC at remaining data bit positions of the same address (*Fig. 4*).

9. *Milos et al.* teach an integrated circuit comprising ROM, wherein ROM data can be read only from an internal circuit (*Milos et al., Fig. 1, col. 3 lines 37-62*).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to configure *Hartung et al.* in view of APA invention so that the ROM data can be read only from an internal circuit as taught by *Milos et al.* One of ordinary skill in the art would have been motivated to perform such a modification in order to protect data from unauthorized reading (*Milos et al., col. 2 lines 4-51*).

10. Claim 5 is substantially equivalent to claim 1; therefore claim 5 is similarly rejected.

11. Claims 1 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Hartung et al. (U.S. Patent 4438512) in view *Katsuta (U.S. Patent 5671394)* and further in view of *Milos et al. (U.S. Patent No. 5860099)*.

12. As per claim 1 *Hartung et al.* teach a data storage unit 10 that stores the plurality of data and plurality of CRCs (col. 3 lines 41-43).

This reads on a storage data unit for storing data thereon address by address, and on a storage device for storing plural redundancy check data (CRC) address by address.

Fig. 2 and col. 3 lines 68- col. 4 line 1 *Hartung et al.* teach data with a corresponding CRC and it is inherent that a CRC is derived by performing a predetermined calculation on the corresponding data.

Hartung et al. teach a CRC generator and compare circuits/programs that result in a data error being detected (col. 4 lines 33-36 and 55-col 5line 29).

This reads on a tester that includes a checker and comparing the checker calculation with each of the corresponding plural CRC data that is stored in the storage device address by address.

Although, *Hartung et al.* does not explicitly teach that the checker performs the same calculation as the predetermine calculation on each of the plural data in order to establish data integrity CRC must be calculated in the same manner so that the result is the same for each of the calculation on the same data.

13. *Hartung et al.* do not teach that the storage is ROM and do not explicitly teach that the plurality of data stored in the ROM is confidential data.

14. *Katsuta* teach a ROM for storing plural confidential data thereon address by address (*Fig. 3 and col. col. 8 lines 42-44*).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to implement *Hartung et al.*'s invention into the ROM as taught by *Katsuta*. One of ordinary skill in the art would have been motivated to perform such a modification in order to ensure integrity of the confidential data.

15. CRC is stored within the data storage unit (*Hartung et al. Fig. 2*) and each of the plural CRCs and the plural confidential data are stored at mutually different address (*Fig. 2 and col. 3 lines 38-55*), where (*claim 4*) each of the plural confidential data is stored at certain data bit positions of an address and CRC at remaining data bit positions of the same address (*Fig. 4*).

16. *Hartung et al.* in view of *Katsuta* do not explicitly teach that the confidential data can be read only from an internal circuit inside of the integrated circuit.

17. *Milios et al.* teach an integrated circuit comprising ROM, wherein ROM data can be read only from an internal circuit (*Milios et al., Fig. 1, col. 3 lines 37-62*).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to configure *Hartung et al.* in view of *Katsuta* invention so that the ROM data can be read only from an internal circuit as taught by *Milios et al.* One of ordinary skill in the art would have been motivated to perform such a modification in order to protect data from unauthorized reading (*Milios et al., col. 2 lines 4-51*).

18. Claim 5 is substantially equivalent to claim 1; therefore claim 5 is similarly rejected.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Poltorak whose telephone number is (571) 272-3840. The examiner can normally be reached Monday through Thursday from 9:00 a.m. to 4:00 p.m. and alternate Fridays from 9:00 a.m. to 3:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Morse can be reached on (571) 272-3838. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Signature

12/29/05


GILBERTO BARRON JR.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100